

VALID

Pat. No. 05784431 - 8
Issue Date: 07/21/98

Group ID: F Page 1
User ID: 0731AQ KS: 2,224

Warning [Pages Of US References:]

page 3 has no references

page 4 has no references

Warning [Pages Of Foreign References:]

page 1 has no references

page 2 has no references

page 3 has no references

page 4 has no references

Warning [Pages Of Other References:]

page 1 has no references

Warning [Blue Slip Class Versus Class:]

has Class from Blue Slip that does not match Class from Jacket

Warning [Blue Slip Sub Class Versus Sub Class:]

has SubClass from Blue Slip that does not match SubClass from Jacket

CHECK LIST

Rule 47 Continuing Data PCT Disclaimer

No No No No

Foreign Priority Claimed: No
Acknowledged: No

State Code: PA Country Code:

=====

JACKET

<u>SERIAL NUMBER</u>	<u>FILING DATE</u>	<u>CLASS</u>	<u>SUBCLASS</u>	<u>GAU</u>
8739622	10/29/96	378	65	2506

FOREIGN PRIORITY
Country Document Number Date

DISCLAIMER

/ /

TITLE

Apparatus for matching X-ray images with reference images

MICROFICHE APPENDIX

ASSISTANT EXAMINER:

<u>First:</u>	<u>Middle:</u>	<u>Last:</u>
David	Vernon	Bruce

PRIMARY EXAMINER:

<u>First:</u>	<u>Middle:</u>	<u>Last:</u>
David	P.	Porta

CLAIMS ALLOWED
Total Print

28 21

DRAWINGS

Sheets Figures Print

Pat. No. 05784431 - 8
Issue Date: 07/21/98

Group ID: F
User ID: 0731AQ

Page 2

8 13 Y

=====

BLUE SLIP INFORMATION

<u>SERIAL NUMBER</u>	<u>CLASS</u>	<u>SUBCLASS</u>	<u>GAU</u>
8739622	3758	695	2506

<u>INDEP. CLAIMS</u>	<u>TOTAL CLAIMS</u>
1,21,26	28

=====

BLUE SLIP (Page 1)

INTERNATIONAL CLASSIFICATION

<u>Class</u>	<u>SubClass</u>
--------------	-----------------

A61N	5/10
------	------

CROSS-REFERENCES

<u>Class</u>	<u>SubClass</u>
--------------	-----------------

378	69;901
-----	--------

=====

FIELD OF SEARCH

<u>Class</u>	<u>SubClass</u>
--------------	-----------------

378	8;20;69;68;401
-----	----------------

=====

PTOL85b INFO

<u>SERIAL NUMBER</u>	<u>FILING DATE</u>
----------------------	--------------------

8739622	10/29/96
---------	----------

ASSIGNEE DATA PRESENT

Yes

=====

ATTORNEYS

<u>Type:</u>	<u>Firm/First:</u>	<u>Middle:</u>	<u>Last:</u>
Individual	Richard	V.	Westerhoff
Firm	Eckert Seamans Cherin & Mellot, LLC		

=====

ASSIGNEES

<u>Code:</u>	<u>Firm/First:</u>	<u>Middle:</u>	<u>Last:</u>
02	University of Pittsburgh of the Commonwealth System of Higher Education		
<u>City:</u>	<u>State:</u>	<u>Country:</u>	
Pittsburgh	PA		
<u>Text:</u>			

=====

OATH

<u>INVENTOR NAME</u>			
<u>First:</u>	<u>Middle:</u>	<u>Last:</u>	<u>Signed:</u>
Andre	M.	Kalend	Yes
<u>City:</u>	Monroeville		

<u>INVENTOR NAME</u>			
<u>First:</u>	<u>Middle:</u>	<u>Last:</u>	<u>Signed:</u>
Joel		Greenberger	Yes
<u>City:</u>	Sewickley		

<u>INVENTOR NAME</u>			
<u>First:</u>	<u>Middle:</u>	<u>Last:</u>	<u>Signed:</u>
Karun	B.	Shimoga	Yes
<u>City:</u>	Pittsburgh, all of		

State: PA ZIP Code: Country: Foreign ZIP:

INVENTOR NAME

First: Middle: Last: Signed:
Charalambos N. Athanassiou Yes

City: Athens

State: ZIP Code: Country: GRX Foreign ZIP:

INVENTOR NAME

First: Middle: Last: Signed:
Takeo Kanade Yes

City: Pittsburgh

State: PA / ZIP Code: Country: Foreign ZIP:

=====
PCT INFO

=====
CONTINUING DATA (Page 1)

LINE CODE SERIAL NUMBER FILING DATE STATUS DOCUMENT NO. ISSUE DATE

=====
REFERENCES (Page 1) SERIAL NUMBER: 8739622

U.S. REFERENCES

<u>U.S. Pat No.</u>	<u>Date</u>	<u>Patentee</u>	<u>Class</u>	<u>SubClass</u>
5,315,630 /	05/1994	Strum et al. /	378 /	65 /

FOREIGN REFERENCES

<u>Foreign Doc No.</u>	<u>Date</u>	<u>Country</u>	<u>Class</u>	<u>SubClass</u>
------------------------	-------------	----------------	--------------	-----------------

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

=====
REFERENCES (Page 2) SERIAL NUMBER: 8739622

U.S. REFERENCES

<u>U.S. Pat No.</u>	<u>Date</u>	<u>Patentee</u>	<u>Class</u>	<u>SubClass</u>
4,995,068 ✓	02/1991 ✓	Chou et al. ✓	378 ✓	189 ✓
5,398,684 ✓	03/1995 ✓	Hardy ✓	128 ✓	653.1 ✓

FOREIGN REFERENCES

<u>Foreign Doc No.</u>	<u>Date</u>	<u>Country</u>	<u>Class</u>	<u>SubClass</u>
------------------------	-------------	----------------	--------------	-----------------

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

IEEE Transactions on Pattern Analysis and Machine Intelligence, vol.

PAMI-7, No. 3, [i Template Matching in Rotated Images, [l A.

Goshtasby, pp. 338-344, May 1985.

[i Image Registration by Local Approximation Methods, [l vol. 6, No.

4, A. Goshtasby, pp. 255-261, Nov. 1988.

Computer Vision, Graphics, and Image Processing 47, [i Automated

Registration of Dissimilar Images: Application to Medical Imagery, [l

M. Herbin et al., pp. 77-88, 1989.

[i Computer and Robot Vision, [l vol. I, 7.2.12 [i Noise-Removal

Techniques-Experiments, [l R. Haralick and L. Shapiro, 1992.

International Journal of Computer Vision, 8:2, 99-111, [i Feature

Extraction from Faces Using Deformable Templates, [l A. Yuille et al.,

pp. 99-111, 1992.

=====

REFERENCES (Page 3) SERIAL NUMBER: 8739622

U.S. REFERENCES

<u>U.S. Pat No.</u>	<u>Date</u>	<u>Patentee</u>	<u>Class</u>	<u>SubClass</u>
---------------------	-------------	-----------------	--------------	-----------------

FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

[i Pseudocorrelation: A fast, robust, absolute, grey-level image alignment algorithm, [l Medical Physics, vol. 21, No. 6, R. Radcliffe et al., pp. 761-769, Jun., 1994.

Technical paper of Xerox Palo Alto Research Center, [i Tracking and Recognizing Facial Expressions in Image Sequences, using Local Parameterized Models of Image Motion, [l M. Black and Y. Yacoob, Jan. 1995

[i Clinical implementation of an objective computer-aided protocol for intervention in intra-treatment correction using electronic portal imaging, [l F. Van den Heuvel et al., Radiotherapy and Oncology 35 (1995) 232-239, Jun. 1995.

=====

REFERENCES (Page 4) SERIAL NUMBER: 8739622

U.S. REFERENCES

U.S. Pat No. Date Patentee Class SubClass

FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

A Framework for the Robust Estimation of Optical Flow, Black, Michael J., Proc. Fourth Int. Conf. on Computer Vision (ICCV[3 93), Berlin, Germany May 1993. 
